UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,178	12/04/2003	Mansoor Ali Khan Alicherry	8-8-7-23	8779

7590 08/11/2006	EXAMINER
Docket Administrator (Room 3J-219) Lucent Technologies Inc. 101 Crawfords Corner Road Holmdel, NJ 07733-3030	MILORD, MARCEAU

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears   n the cover sheet with the corresp ndence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 December 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 December 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
>
> described as set forth in section 102 of this title, if the differences between the subject
>
> matter sought to be patented and the prior art are such that the subject matter as a whole
>
> would have been obvious at the time the invention was made to a person having ordinary
>
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
>
> by the manner in which the invention was made.

2.   Claims 1- 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh et al

(US Patent No 6603977 B1) in view of Sashinoglu (US Patent No 6885969 B2).

Regarding claims 1-8, Walsh et al discloses a method for determining a location of a

Bluetooth enabled mobile device (figs. 1-3, fig. 5), the method comprising the steps of:

broadcasting, from the Bluetooth enabled mobile device, a message to a plurality of mobile

devices (col. 8, lines 19-55; col. 10,lines 35-53; col. 13, lines 10-35); determining if a

predetermined minimum number of responses to the broadcasted message are received from the

plurality of mobile devices, and if so, synchronizing the Bluetooth enabled mobile device (col.

14, lines 18-62; col. 17, lines 35-59).

However, Walsh et al does not specifically disclose the steps of synchronizing the

Bluetooth enabled mobile device with at least three mobile devices of the plurality of mobile

devices responding to the message; and calculating the location of the Bluetooth enabled mobile

device as a function of the respective locations of the synchronized at least three mobile devices.

On the other hand, Sashinoglu, from the same field of endeavor discloses a method

locates a mobile node in a partially synchronized wireless network comprised of nodes with

heterogeneous communication ranges. The time intervals it takes for messages to travel from

stationary nodes at known location to a mobile node at an unknown location are measured and

used to determine a set of possible coordinates of the mobile node. This time-based set of

coordinates is in the form of a hyperbolic function. The received signal strengths of a

message received from the mobile node is measured in two additional stationary

Nodes at known location. These RSS-based measurements provide two more sets of

possible coordinates of the mobile node. The three sets are then intersected to estimate the

location of the mobile node (col. 3, lines 2-27; col. 4, lines 1-45). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to apply the

technique of Sashinoglu to the communication system of Walsh in order to determine locations

of wireless communications devices particularly in networks lacking synchronized timing

signals.

Regarding claims 9-13, Walsh et al discloses a mobile communications apparatus (figs.

1-3, fig. 5), the apparatus comprising: a Bluetooth transceiver; a memory storing a location

application, the location application having at least a plurality of program instructions; and a

processor for executing the plurality of program instructions and for controlling the operation of

the mobile communications apparatus in accordance with the functions defined by the plurality

of program instructions (col. 8, lines 19-55; col. 10,lines 35-53; col. 13, lines 10-35), the

plurality of program instructions defining the steps of: broadcasting, through the Bluetooth

transceiver, a message to a plurality of mobile communications devices; determining if the

responses to the broadcasted message are received, by the Bluetooth transceiver, from the

plurality of mobile communications devices (col. 14, lines 18-62; col. 17, lines 35-59), and if so,

synchronizing, through the Bluetooth transceiver, the mobile communications apparatus (col. 14,

lines 18-62; col. 17, lines 35-59).

However, Walsh et al does not specifically disclose the features of synchronizing the

mobile communications apparatus with at least three mobile communications devices of the

plurality of mobile communications devices responding to the message; and calculating the

location of the mobile communications apparatus as a function of a respective location of each of

the synchronized mobile communications devices.

On the other hand, Sashinoglu, from the same field of endeavor discloses a method

locates a mobile node in a partially synchronized wireless network comprised of nodes with

heterogeneous communication ranges. The time intervals it takes for messages to travel from

stationary nodes at known location to a mobile node at an unknown location are measured and

used to determine a set of possible coordinates of the mobile node. This time-based set of

coordinates is in the form of a hyperbolic function. The received signal strengths of a message

received from the mobile node is measured in two additional stationary nodes at known location.

These RSS-based measurements provide two more sets of possible coordinates of the mobile

node. The three sets are then intersected to estimate the location of the mobile node (col. 3, lines

2-27; col. 4, lines 1-45). Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to apply the technique of Sashinoglu to the communication

system of Walsh in order to determine locations of wireless communications devices particularly

in networks lacking synchronized timing signals.

Regarding claims 14-17, Walsh et al discloses a Bluetooth transceiver comprising: means

for broadcasting a message to a plurality of mobile communications devices; (figs. 1-3, fig. 5),

means for determining if the responses to the broadcasted message are received from the

plurality of mobile communications devices, (col. 8, lines 19-55; col. 10,lines 35-53; col. 13,

lines 10-35); and if so, means for synchronizing a particular Bluetooth enabled mobile

communications device (col. 14, lines 18-62; col. 17, lines 35-59).

However, Walsh et al does not specifically disclose the features of a means for

synchronizing at least three mobile communications devices of the plurality of mobile

communications devices responding to the message and a means for calculating the location of

the particular Bluetooth enabled mobile device as a function of the respective locations of the

synchronized at least three mobile communications devices.

On the other hand, Sashinoglu, from the same field of endeavor discloses a method

locates a mobile node in a partially synchronized wireless network comprised of nodes with

heterogeneous communication ranges. The time intervals it takes for messages to travel from

stationary nodes at known location to a mobile node at an unknown location are measured and

used to determine a set of possible coordinates of the mobile node. This time-based set of

coordinates is in the form of a hyperbolic function. The received signal strengths of a message

received from the mobile node is measured in two additional stationary nodes at known

location. These RSS-based measurements provide two more sets of possible coordinates of the

mobile node. The three sets are then intersected to estimate the location of the mobile node

(col. 3, lines 2-27; col. 4, lines 1-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Sashinoglu to the communication system of Walsh in order to determine locations of wireless communications devices particularly in networks lacking synchronized timing signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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